



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,588	02/15/2001	Toshiyuki Nakamura	P 0275314/TLG200104	4352
909	7590	10/03/2003	EXAMINER	
PILLSBURY WINTHROP, LLP			ROY, SIKHA	
P.O. BOX 10500			ART UNIT	
MCLEAN, VA 22102			PAPER NUMBER	
			2879	

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/783,588

Applicant(s)

NAKAMURA ET AL.

Examiner

Sikha Roy

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

The Amendment, filed on July 2, 2003 has been entered and is acknowledged by the Examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11003682 to Yamada et al. in view of JP 11162329 to Yasuhara et al. and further in view of U.S. Patent 4,878,854 to Cannon.

Regarding claim 1 Yamada discloses (Figs. 1 and 2) a circular fluorescent lamp L1 comprising light transmitting circular tube 1 filled with a discharge gas including mercury and a rare gas having a tube outer diameter between about 14mm and 18 mm, a phosphor layer coated on the inner surface of the light-transmitting circular tube, a stem (3L, 3S) sealing each end of the light transmitting circular tube, a pair of conductive wires 4 held in each stem, one of the ends of each pair connected to one of the filaments 5 and the other ends extending outwardly from the circular tube and a lamp base (mouthpiece) 9 arranged between the ends of the light transmitting circular tube including conductive pins 91 connected to conductive wires.

Art Unit: 2879

Claim 1 differs from Yamada in that Yamada does not exemplify the base being able to rotate slightly around the center axis of the circular tube and an insulator arranged between the conductive wires.

Yasuhara in analogous art of fluorescent lighting discloses (Fig. 2) the base (mouthpiece) 7 of a circular fluorescent lamp attached in a way that it may rotate to a certain amount of angle around the center axis of the tube. Yasuhara discloses an insulating adhesive 8 relieving the stress arising due to the rotation and preventing contact or short-circuit of the wires by rotation of the base. Yasuhara further notes that this rotating design of the base provides easy anchoring and easy connection with the lead wires and electrical connection work with a socket.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify the base of the circular lamp of Yamada so that it can rotate slightly around the axis of the tube as taught by Yasuhara for easy anchoring and easy connection with the lead wires and electrical connection work with a socket preventing short-circuiting of the wires during movement of the base.

Yamada and Yasuhara do not disclose the insulator adhered to the sealing portion of one of the stems providing the insulation between the conducting or lead wires.

Cannon in relevant art of lamp base discloses (column 2 lines 14-26 Fig. 1) insulator (insulating block 26) adhered on the sealing portion through which base pins

Art Unit: 2879

for the two conductive wires 18 are inserted. It is to be noted that this design enables the conductive wires insulated and held in position spaced apart eliminating the danger of electrical shock.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify the insulator adhered to the sealing portion of the lamp arranged between the conducting wires of Yamada and Yasuhara as disclosed by Cannon so that the conductive wires are insulated.

Claim 9 essentially recites the same limitations as of claim 1 for a lighting fixture. In addition Yamada discloses (Fig. 3) a ballast D2 supplying electric power to the circular fluorescent lamp and a body D (lighting fitting) arranging the lamp and the ballast.

Referring to claim 2 Yamada et al. disclose (Fig. 2) that length of one stem (3L) is longer than that of the other stem (3S).

Regarding claim 3 Yamada et al. disclose the length of the longer stem is between 20-40 mm and the length of the shorter stem is 13 mm which is within the claimed range.

Regarding claim 4 it is clearly evident from Fig. 4 of Yamada that the axes of the filament and the conductive pins are arranged perpendicularly to each other.

Regarding claim 5 Yamada and Yasuhara disclose the insulator made of thermoplastic silicone resin but do not disclose the insulator adhering to the tip of the sealing portion.

Art Unit: 2879

Cannon in relevant art of lamp base discloses (column 2 lines 14-26 Fig. 1) insulating block 26 at the tip of the sealing portion and between two conductive wires 18. It is to be noted that this design enables the conductive wires held in position spaced apart eliminating the danger of electrical shock.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to have the insulator of the lamp of Yamada and Yasuhara adhering to the tip of the sealing stem portion as disclosed by Cannon so that the conductive wires held in position spaced apart eliminating the danger of electrical shock.

Regarding claim 8 Cannon discloses the insulating adhesive projects from the tip of the sealing portion.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11003682 to Yamada et al., JP 11162329 to Yasuhara et al. and U.S. Patent 4,878,854 to Cannon and further in view of U.S. Patent 4,281,238 to Noma et al.

Regarding claims 6 and 7 Yamada, Yasuhara and Cannon do not disclose the hardness of the colored insulating silicone rubber.

Noma in pertinent art of tubular heaters in a tubular lamp discloses (column 3 lines 7-20) silicone rubber with a specific hardness in the range from 20 to 80 as cured by the scale defined in JIS K6301. Noma further discloses this silicone rubber is advantageous for having relatively low hardness in order to ensure good contact for good electric insulation and for conducting heat efficiently from the lamp.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to select the insulator in the lamp of Yamada, Yasuhara and Cannon having

Art Unit: 2879

specific hardness as taught by Noma et al. for ensuring good contact for good electric insulation and for conducting heat efficiently from the lamp.

Regarding claim 7 Noma discloses adding coloring agent (column 5 lines 24,25) in the silicone rubber compound.

Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11003682 to Yamada et al. in view of JP 11162329 to Yasuhara et al.

Referring to claim 1 Yamada and Yasuhara et al. do not exemplify the insulator arranged between the conductive wires providing insulation between the wires.

It is well within the teaching of the art to hold and insulate the lead connectors by covering the wires with silicone rubber insulator as evidenced by U. S. Patent 4,949,007 to Takagi (Figs.3 and 4A column 3 lines 53-55). Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify the insulator arranged between the wires and adhered to the sealing portion of one stem of the lamp of Yamada and Yasuhara for insulating the conducting wires.

Claim 9 essentially recites the same limitations as of claim1 for a lighting fixture. In addition Yamada discloses (Fig. 3) a ballast D2 supplying electric power to the circular fluorescent lamp and a body D (lighting fitting) arranging the lamp and the ballast.

Response to Arguments

Applicant's arguments with respect to claims 1 and 9 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2879

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (703) 308-2826. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (703) 305-4794. The fax phone number for the organization is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

S.R.
Sikha Roy
Patent Examiner
Art Unit 2879


NIMESHKUMAR D. PATEL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800